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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,666	01/28/2005	Peter Scheibli	4-22732/A/PCT	8590
62968 7590 06/24/2008 HUNTSMAN INTERNATIONAL LLC LEGAL DEPARTMENT 10003 WOODLOCH FOREST DRIVE THE WOODLANDS, TX 77380				
EXAMINER				
KHAN, AMINA S				
ART UNIT		PAPER NUMBER		
1796				
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06/24/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,666

Applicant(s)

SCHEIBL, PETER

Examiner

AMINA KHAN

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/18/08.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 18, 2008 has been entered.

2. Claims 1-10 are pending.

3. Claims 1,2 and 4-10 stand rejected under 35 U.S.C. 103(a) as obvious over Donenfeld (US 4,576,610) in view of Fukui et al. (US 5,529,586) for the reasons set forth in the previous office action.

4. Claim 3 stands rejected under 35 U.S.C. 103(a) as obvious over Donenfeld (US 4,576,610) in view of Fukui et al. (US 5,529,586) and further in view of Yamane et al. (US 4,210,412) for the reasons set forth in the previous office action.

Claim Rejections - 35 USC § 103

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1,5,6 and 8-10 are rejected under 35 U.S.C. 103(a) as obvious over Dien (Us 3,510,241) in view of Kimbrell (US 6,113,656).

Dien teaches dyeing polyester cotton blends by pad dyeing methods with compositions comprising disperse dyes and polymerized acrylic resin followed by drying and heating (column 4, example 3).

Dien does not teach polyester resins.

Kimbrell, in the analogous art of dyeing polyester/cotton blends, teaches dyeing blended fabrics with disperse dyes including auxiliaries such as dispersing agents and leveling agents (column 4, lines 35-40; 60-65). Kimbrell further exemplifies a polyester resin as a suitable levelling agent (column 8, lines 5-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Dien by incorporating the polyester resin levelling agents taught by Kimbrell because Kimbrell teach these as conventional dyeing auxiliaries (column 4, lines 35-40) and exemplify polyester resin as an effective example of such a levelling agent.

Regarding the method limitation of claim 5 in which the aqueous composition is applied prior to contact with the disperse dye, in general the transposition of process steps or the splitting of one step into two, where the processes are substantially

identical or equivalent in terms of function, manner and result, was held to not patentably distinguish the processes, see *Ex parte Rubin*, 128 USPQ 159 (PO BdPatApp 1959).

Regarding the method limitation of condensing the pretreatment, this would obviously be provided by the drying and heating steps which would remove solvent and dehydrate the resin.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as obvious over Dien (US 3,510,241) in view of Kimbrell (US 6,113,656) and further in view of Fukui et al. (US 5,529,586).

Dien and Kimbrell are relied upon as described in paragraph 6.

Dien and Kimbrell do not teach the instantly claimed dyes of formulas (1)-(14).

Fukui et al., in the analogous art of dyeing polyester/cotton blends, teaches dyeing blended fabrics with compositions comprising resins and disperse dyes of Tables 2 and 3 for padding onto cloth or in a dye bath with heat, which meets the limitation of exhausting (column 9, lines 1-45, columns 3-8). Fukui et al. teach these compositions produce excellent dyeings and printings with high fastness properties.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Dien and Kimbrell by incorporating the disperse dyes taught by Fukui because Fukui teach polyester/cotton blends dyed with these disperse dyes produce excellent dyeings and printings with high fastness properties and Dien and Kimbrell invite the inclusion of disperse dyes for treating similar fabrics.

8. Claims 1,5,6 and 8-10 are rejected under 35 U.S.C. 103(a) as obvious over Fukui et al. (US 5,529,586) in view of Dien (US 3,510,241) and further in view of Kimbrell (US 6,113,656).

Fukui et al., in the art of dyeing polyester/cotton blends, teaches dyeing blended fabrics with compositions comprising resins and disperse dyes of Tables 2 and 3 for padding onto cloth or in a dye bath with heat followed by steaming or heating, which meets the limitation of exhausting (column 9, lines 1-45, columns 3-8). Fukui et al. teach these compositions produce excellent dyeings and printings with high fastness properties. Fukui et al. further teach adding leveling agents, resin binders and dispersing agents to the dye compositions (column 8, lines 60-65).

Fukui et al. do not teach the acrylates and polyester resins.

Dien, in the analogous art of dyeing polyester cotton blends by pad dyeing, teach dyeing blended fabrics with compositions comprising disperse dyes and polymerized acrylic resin as a dispersing agent followed by drying and heating (column 4, example 3).

Kimbrell, in the analogous art of dyeing polyester/cotton blends, teaches dyeing blended fabrics with disperse dyes including auxiliaries such as dispersing agents and leveling agents (column 4, lines 35-40; 60-65). Kimbrell further exemplifies a polyester resin as a suitable leveling agent (column 8, lines 5-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Fukui by incorporating the polyester resin

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leveling agents and acrylic resins dispersing agents taught by Kimbrell and Dien because Kimbrell and Dien teach these as conventional dyeing auxiliaries.

Regarding the method limitation of claim 5 in which the aqueous composition is applied prior to contact with the disperse dye, in general the transposition of process steps or the splitting of one step into two, where the processes are substantially identical or equivalent in terms of function, manner and result, was held to not patentably distinguish the processes, see *Ex parte Rubin*, 128 USPQ 159 (PO BdPatApp 1959).

Regarding the method limitation of condensing the pretreatment, this would obviously be provided by the drying and heating steps which would remove solvent and dehydrate the resin.

Response to Arguments

9. Applicant's arguments filed regarding Donenfeld (US 4,576,610) in view of Fukui et al. (US 5,529,586) have been fully considered but they are not persuasive. The applicant argues that Donenfeld et al. teach sublimation dye transfer printing and do not teach dyeing with aqueous compositions and that these methods are not functionally equivalent. The examiner respectfully disagrees. Donenfeld clearly discloses impregnating fabric with dye bonding compositions comprising polyester resin and acrylate resin (column 5, lines 10-35) and then applying a sublimation dye transfer printing element to obtain a printed product with good color depth, fastness and soft hand (columns 13 and 14 example 20). Donenfeld further teach that the dye binder and

the resin act cooperatively and synergistically to improve color depth evenness in product fabrics while ensuring satisfactory fastness of the sublimation transfer printed dye (column 4, lines 60-67) which is a disperse dye (column 7, lines 15-40).

Fukui et al. teach that the instantly claimed dyes of applicant's claim 2 are suitable for both pad and exhaust application as well as sublimation dyeing (column 9, lines 1-5 and 30-35) and provide fabrics with level dyeing, excellent fastness and build-up. The examiner argues one of ordinary skill in the art at the time the invention was made would have been motivated to substitute the exhaust or pad methods of dyeing for the known sublimation transfer method of dyeing because both methods arrive at the predictable result of coloring cotton/polyester blends with excellent fastness. It would have been obvious to one of ordinary skill in the art to substitute one known method of dyeing for another known method of dyeing to achieve the predictable result of disperse dyed cotton/polyester blends with excellent fastness since the dye binding composition would be expected to bind disperse dyes, a property which would be independent of the method of application.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMINA KHAN whose telephone number is (571)272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorna M Douyon/
Primary Examiner, Art Unit 1796

/Amina Khan/
Examiner, Art Unit 1796
June 19, 2008